                    SEQUENCE LISTING

<110> Korea Research Institute of Bioscience and Biotechnology

<120> MULTIPLE STRESS-INDUCIBLE PEROXIDASE PROMOTER DERIVED FROM
       IPOMOEA BATATAS

<130> 58049-00035

<140> 10/597,945
<141> 2006-08-11

<160> 30

<170> PatentIn version 3.3

<210> 1
<211> 3945
<212> DNA
<213> Ipomoea batatas

<400> 1
cctcatggag tattctcata actctcttca gtatgaatga atcatacaat acaacgcagc   60

gacgaataga cttcgccctg aactagacat acgacaacat agccaccata cgggaaaggc   120

acttcaagct ctttatcccg taggctgcaa caacataacg acataacgac cactgggcaa   180

gggcatttac agccaccgt gggtcaatca aggtcctcct cactcacttt agaaactaag   240

ggtttgaaaa catgatcttt ccttcagttt ttcttacaac aaatcattca ctttggacac   300

atttcacaat tgagtccaat acttaaaccg gctacttcat tagcccctga aggattttaa   360

aaaaaacttt cactgcccgc aggctcttca aacatctttt cctcattatc aagtgaggca   420

ttttcctcaa aagtaaggtt ttgacaacct ttatatcaaa atagcatacg tttttcaacg   480

taagtttcat aacatttact tgccatctca ccacttcgtc ttaaacaatc taggatattc   540

ttagatattc ttcatactca agtctcacac ttgaaatcaa tcaagactct tacactaaca   600

attcctcaat atacctcata atatcatctc tacttaaact agagagattt ccaactctca   660

attaatcacc aaaggtaact ctccaaatat ccaaatggaa ggtttcaact tccaaactaa   720

taccaaacca accggactaa tcataatcat attcataatc ataaattgtt tctaactgcc   780

cctgtccaga aattacagtt ttgcgcagtc cgaaagattg agccggtaac aatagttccc   840

gaactctttt tcacttgaaa tttttatggt agaaccctaa cttatagtac ttgatatcca   900

taaaaagttt tggtcaccta ggttcacgaa ttaacacaga aaattacatc tttgcccttg   960

gcagtgggct gtccggaatt ctgtctctct ggaccagttt tggcaaacaa ttttgaaacc   1020

acacttatac tactccaaaa attatgaaat ttttatggta gcttctacac ttatagaact   1080

acatgtataa aaaatattgg gtcaaaatac cttaccgatt tttcccaaat attcacggaa   1140

cttactgcca gaatctaccc tgcttttttcc tttcactatt ttcacaacta taagcatata   1200

tgggcataaa tatgacatga acatgcatga accaatgcag ggtgaaagta agattcgaata   1260
                              Page 1

```
tactgatact acaattaact aatgataaag tataacttttt gtaaaaaatt tgattttttt    1320

ttttgatgaa ttcatatact ccaaagattt tcctcattta attaaatttc tatcctcatg    1380

ttgaacccat taatcgaata attgacatat tagataaact tagccatcat atgacatttg    1440

atcatgattg atgattttta aaaaataaaa acaaaattat gaaagggtaa tgaaatattt    1500

taaaaaaatt atgtaaaccc tgtaatctag taatctgtac aataataatt ttgtttcaac    1560

taagaggatg ttggcaaaag tataattaaa cttgtgatct tcgtacaata attatgcttc    1620

acgcactcaa ctagtcacat ctttccaggc aaaatttact tttctatgaa tatgagaagt    1680

tccatctatg gaaataacgg attatttatc taattttcaa attctatata tatagtctcg    1740

agtggaacaa aaatagaact aatttgaaca aatcaaagtc taagaaaata atacatgctt    1800

tagcagcaaa aataagaatg gtactatact taatcctcat catagtcttc aaccctgcat    1860

atagcacact taacatttta tattcaaata tactttaatt tagtcatgat aatacaactc    1920

acctactcca ttatagccga taatacaact cacctagcta ctccattata gtccaacaat    1980

atcaaatgaa taaaatagta atggtgactt aaagggctga atccaacata tattctgaca    2040

tttaaaaatg ctaacgtacg gttagattag tataatgaaa taaagttaat cattctctat    2100

atttgatgat ggtaattagt atcatggtaa ggtgtttttat cgtggcagca tgagtgcatg    2160

acaaacgcat atattattat taaaacaaaa tagtactcca atcataataa attatcttat    2220

attatattgc caacaattaa aaattcaaat tagaacaaat taaatctcag tttgcttttat    2280

tatattatta tcaacaataa taatttaata ctgatcgaag aacttttccct ttcaagttct    2340

ctatttaagg aagcctgaga agccattaat cctcatcatc agctcgacca ctcatttctt    2400

cttcatactt cctttgctgt gataatcatc atcatggctt cctttgtcac tcggctcagc    2460

ctggcccttta gcttcatcgc cctagcccta gctggcttct ccatttacca gaatacccat    2520

acagccatga aagggcagct taagctcacc ccaaagtggc tgctagacaa cactctagag    2580

tcgtcagtgg ccgacgtgct ctcactacgc ctaggcatct cctccggcaa gctttccgac    2640

gaagactgca tattctccgc cgttaaggaa gtggtggacg ccgccattga tgcagaaacc    2700

cgcatgggtg cttccctcat tcgcctcttc ttccatgact gctttgttga tgtacgtacg    2760

ctaattttgt acgatgatgt tttttttttt tttttttttt ttcccactgc attatattag    2820

gaaattaaac agattgaaat gtgtgttatt aatgtattat ctgcagggtt gtgacgcagg    2880

tcttctacta aacgatacac ctactttcac cggagaacag accgccggcg gcaataataa    2940

ctcagtcaga ggtttttgagg tgatacaaca agctaaagag aatgtgataa ccaaatgtcc    3000

ctacatacaa gtatcttgtg ccgacatctt atccattgct gccgtgatt ccttttccagag    3060

agtaagtcca tttatttcta aaggttgaaa ttaataagaa caagaatcca aacaaataac    3120
```

```
agacagtaaa aaaaaagat ttatgtggtt tgacaatatg ttgaaattgt ttttatattt      3180

aatgactagt atttatgcat tatatttata tgcaactcta aacatgcagt ttactggaga      3240

aacgtacacc gtgactctgg gaagactcga tgcaagaacg gcgaacctta ccggagctaa      3300

cacccaactc gtcggaccaa acgaggaatt ggcatcgcaa gtcgagaaat ttgcggcgaa      3360

agggttctcc gaaacggagc tagtcgcctt gttaggtgtt cacacggttg ggttttcgag      3420

atgtccgctt ttatgcgttc ccattttcat caatcccgcc cgggcctcca cgctgcaatg      3480

caactgtccg gtgagtcccg acgacaccgg gctggtgggc ctggacccca ctccgttgac      3540

gtgggaccaa agtttttact ccgacgtggc taacggacaa gggcttctgt tctccgacaa      3600

cgagctgatg aatagcaaca ccaccagcgc cgccgttagg aggtacaggg acgagatgga      3660

cgcttttctc gccgatttcg ccgccgccat ggtgaagatg agcctcctgc cgccgtcccc      3720

cggagtggag ctcgaaatcc gagaggtttg cagcgaggtg aatgccaaca cagttgcatc      3780

catgtgaagt tcgttcccat cgacatcaat aacgtctgtg attctgtgaa agtttttactc     3840

ggactgtgaa gaattttcac tttctgttgt ttctgaaata aaaaagattt tttttttatg      3900

tcctaacaaa acttgtatta ctgaataaaa tttataaatt tgtta                      3945
```

<210> 2
<211> 110
<212> DNA
<213> Ipomoea batatas

<400> 2
```
tttccctttc aagttctcta tttaaggaag cctgagaagc cattaatcct catcatcagc        60

tcgaccactc atttcttctt catacttcct ttgctgtgat aatcatcatc                  110
```

<210> 3
<211> 177
<212> DNA
<213> Ipomoea batatas

<400> 3
```
aaaattaaatc tcagtttgct ttattatatt attatcaaca ataataattt aatactgatc       60

gaagaacttt ccctttcaag ttctctattt aaggaagcct gagaagccat taatcctcat      120

catcagctcg accactcatt tcttcttcat acttccttg ctgtgataat catcatc          177
```

<210> 4
<211> 306
<212> DNA
<213> Ipomoea batatas

<400> 4
```
taaggtgttt tatcgtggca gcatgagtgc atgacaaacg catatattat tattaaaaca       60

aaatagtact ccaatcataa taaattatct tatattatat tgccaacaat taaaaattca      120
```

```
aattagaaca aattaaatct cagtttgctt tattatatta ttatcaacaa taataattta      180

atactgatcg aagaactttc cctttcaagt tctctattta aggaagcctg agaagccatt      240

aatcctcatc atcagctcga ccactcattt cttcttcata cttcctttgc tgtgataatc      300

atcatc                                                                306


<210>  5
<211>  306
<212>  DNA
<213>  Ipomoea batatas

<400>  5
taaggtgttt tatcgtggca gcatgagtgc atgacaaacg catatattat tattaaaaca       60

aaatagtact ccaatcataa taaattatct tatattatat tgccaacaat taaaaattca      120

aattagaaca aattaaatct cagtttgctt tattatatta ttatcaacaa taataattta      180

atactgatcg aagaactttc cctttcaagt tctctattta aggaagcctg agaagccatt      240

aatcctcatc atcagctcga ccactcattt cttcttcata cttcctttgc tgtgataatc      300

atcatc                                                                306


<210>  6
<211>  433
<212>  DNA
<213>  Ipomoea batatas

<400>  6
atggtgactt aaagggctga atccaacata tattctgaca tttaaaaatg ctaacgtacg       60

gttagattag tataatgaaa taaagttaat cattctctat atttgatgat ggtaattagt      120

atcatggtaa ggtgtttttat cgtggcagca tgagtgcatg acaaacgcat atattattat      180

taaaacaaaa tagtactcca atcataataa attatcttat attatattgc caacaattaa      240

aaattcaaat tagaacaaat taaatctcag tttgctttat tatattatta tcaacaataa      300

taatttaata ctgatcgaag aactttccct tcaagttct ctatttaagg aagcctgaga      360

agccattaat cctcatcatc agctcgacca ctcatttctt cttcatactt cctttgctgt      420

gataatcatc atc                                                        433


<210>  7
<211>  818
<212>  DNA
<213>  Ipomoea batatas

<400>  7
gcttcacgca ctcaactagt cacatctttc caggcaaaat ttacttttct atgaatatga       60

gaagttccat ctatggaaat aacggattat ttatctaatt ttcaaattct atatatatag      120

tctcgagtgg aacaaaaata gaactaattt gaacaaatca aagtctaaga aaataataca      180
```

```
tgctttagca gcaaaataa gaatggtact atacttaatc ctcatcatag tcttcaaccc      240

tgcatatagc acacttaaca ttttatattc aaatatactt taatttagtc atgataatac      300

aactcaccta ctccattata gccgataata caactcacct agctactcca ttatagtcca      360

acaatatcaa atgaataaaa tagtaatggt gacttaaagg gctgaatcca acatatattc      420

tgacatttaa aaatgctaac gtacggttag attagtataa tgaaataaag ttaatcattc      480

tctatatttg atgatggtaa ttagtatcat ggtaaggtgt tttatcgtgg cagcatgagt      540

gcatgacaaa cgcatatatt attattaaaa caaaatagta ctccaatcat aataaattat      600

cttatattat attgccaaca attaaaaatt caaattagaa caaattaaat ctcagtttgc      660

tttattatat tattatcaac aataataatt taatactgat cgaagaactt tccctttcaa      720

gttctctatt taaggaagcc tgagaagcca ttaatcctca tcatcagctc gaccactcat      780

ttcttcttca tacttccttt gctgtgataa tcatcatc                              818
```

```
<210>  8
<211>  1199
<212>  DNA
<213>  Ipomoea batatas

<400>  8
atgcagggtg aaagtaagat tgaatatact gatactacaa ttaactaatg ataaagtata       60

actttgtaa aaaatttgat tttttttttt gatgaattca tatactccaa agatttttcct      120

catttaatta aatttctatc ctcatgttga acccattaat cgaataattg acatattaga      180

taaacttagc catcatatga catttgatca tgattgatga ttttttaaaa ataaaaacaa      240

aattatgaaa gggtaatgaa atattttaaa aaaattatgt aaaccctgta atctagtaat      300

ctgtacaata ataattttgt ttcaactaag aggatgttgg caaaagtata attaaaacttg      360

tgatcttcgt acaataatta tgcttcacgc actcaactag tcacatcttt ccaggcaaaa      420

tttactttc tatgaatatg agaagttcca tctatggaaa taacggatta tttatctaat      480

tttcaaattc tatatatata gtctcgagtg gaacaaaat agaactaatt tgaacaaatc      540

aaagtctaag aaaataatac atgctttagc agcaaaaata agaatggtac tatacttaat      600

cctcatcata gtcttcaacc ctgcatatag cacacttaac attttatatt caaatatact      660

ttaatttagt catgataata caactcacct actccattat agccgataat acaactcacc      720

tagctactcc aacaatatca atgaataaaa tagtaatggt gacttaaag      780

ggctgaatcc aacatatatt ctgacattta aaatgctaa cgtacggtta gattagtata      840

atgaaataaa gttaatcatt ctctatattt gatgatggta attagtatca tggtaaggtg      900

ttttatcgtg gcagcatgag tgcatgacaa acgcatatat tattattaaa acaaaatagt      960

actccaatca taataaatta tcttatatta tattgccaac aattaaaaat tcaaattaga     1020
```

```
acaaattaaa tctcagtttg ctttattata ttattatcaa caataataat ttaatactga    1080

tcgaagaact ttcccttca agttctctat ttaaggaagc ctgagaagcc attaatcctc    1140

atcatcagct cgaccactca tttcttcttc atacttcctt tgctgtgata atcatcatc    1199


<210>   9
<211>   1467
<212>   DNA
<213>   Ipomoea batatas

<400>   9
ggctgtccgg aattctgtct ctctggacca gttttggcaa acaattttga aaccacactt      60

atactactcc aaaaattatg aaatttttat ggtagcttct acacttatag aactacatgt     120

ataaaaaata ttgggtcaaa ataccttacc gattttttcc aaatattcac ggaacttact     180

gccagaatct accctgcttt ttccttcac tattttcaca actataagca tatatgggca     240

taaatatgac atgaacatgc atgaaccaat gcagggtgaa agtaagattg aatatactga     300

tactacaatt aactaatgat aaagtataac ttttgtaaaa aatttgattt tttttttga     360

tgaattcata tactccaaag attttcctca tttaattaaa tttctatcct catgttgaac     420

ccattaatcg aataattgac atattagata aacttagcca tcatatgaca tttgatcatg     480

attgatgatt tttaaaaaat aaaaacaaaa ttatgaaagg gtaatgaaat attttaaaaa     540

aattatgtaa accctgtaat ctagtaatct gtacaataat aattttgttt caactaagag     600

gatgttggca aaagtataat taaacttgtg atcttcgtac aataattatg cttcacgcac     660

tcaactagtc acatctttcc aggcaaaatt tacttttcta tgaatatgag aagttccatc     720

tatggaaata acggattatt tatctaattt tcaaattcta tatatatagt ctcgagtgga     780

acaaaaatag aactaatttg aacaaatcaa agtctaagaa aataatacat gctttagcag     840

caaaaataag aatggtacta tacttaatcc tcatcatagt cttcaaccct gcatatagca     900

cacttaacat tttatattca aatatacttt aatttagtca tgataataca actcacctac     960

tccattatag ccgataatac aactcaccta gctactccat tatagtccaa caatatcaaa    1020

tgaataaaat agtaatggtg acttaaaggg ctgaatccaa catatattct gacatttaaa    1080

aatgctaacg tacggttaga ttagtataat gaaataaagt taatcattct ctatatttga    1140

tgatggtaat tagtatcatg gtaaggtgtt ttatcgtggc agcatgagtg catgacaaac    1200

gcatatatta ttattaaaac aaaatagtac tccaatcata ataaattatc ttatatatt    1260

ttgccaacaa ttaaaaattc aaattagaac aaattaaatc tcagtttgct ttattatatt    1320

attatcaaca ataataattt aatactgatc gaagaacttt ccctttcaag ttctctattt    1380

aaggaagcct gagaagccat taatcctcat catcagctcg accactcatt tcttcttcat    1440

acttcctttg ctgtgataat catcatc                                        1467
```

```
<210>  10
<211>  1934
<212>  DNA
<213>  Ipomoea batatas

<400>  10
ttgccatctc accacttcgt cttaaacaat ctaggatatt cttagatatt cttcatactc      60

aagtctcaca cttgaaatca atcaagactc ttacactaac aattcctcaa tatacctcat     120

aatatcatct ctacttaaac tagagagatt tccaactctc aattaatcac caaaggtaac     180

tctccaaata tccaaatgga aggtttcaac ttccaaacta ataccaaacc aaccggacta     240

atcataatca tattcataat cataaattgt ttctaactgc ccctgtccag aaattacagt     300

tttgcgcagt ccgaaagatt gagccggtaa caatagttcc cgaactcttt ttcacttgaa     360

attttttatgg tagaacccta acttatagta cttgatatcc ataaaaagtt ttggtcacct     420

aggttcacga attaacacag aaaattacat ctttgccctt ggcagtgggc tgtccggaat     480

tctgtctctc tggaccagtt ttggcaaaca attttgaaac cacacttata ctactccaaa     540

aattatgaaa tttttatggt agcttctaca cttatagaac tacatgtata aaaaatattg     600

ggtcaaaata ccttaccgat ttttcccaaa tattcacgga acttactgcc agaatctacc     660

ctgctttttc ctttcactat tttcacaact ataagcatat atgggcataa atatgacatg     720

aacatgcatg aaccaatgca gggtgaaagt aagattgaat atactgatac tacaattaac     780

taatgataaa gtataacttt tgtaaaaaat ttgattttttt ttttttgatga attcatatac     840

tccaaagatt ttcctcattt aattaaattt ctatcctcat gttgaaccca ttaatcgaat     900

aattgacata ttagataaac ttagccatca tatgacattt gatcatgatt gatgattttt     960

aaaaaataaa aacaaaatta tgaaagggta atgaaatatt ttaaaaaaat tatgtaaacc    1020

ctgtaatcta gtaatctgta caataataat tttgtttcaa ctaagaggat gttggcaaaa    1080

gtataattaa acttgtgatc ttcgtacaat aattatgctt cacgcactca actagtcaca    1140

tctttccagg caaaatttac ttttctatga atatgagaag ttccatctat ggaaataacg    1200

gattatttat ctaattttca aattctatat atatagtctc gagtggaaca aaaatagaac    1260

taatttgaac aaatcaaagt ctaagaaaat aatacatgct ttagcagcaa aaataagaat    1320

ggtactatac ttaatcctca tcatagtctt caaccctgca tatagcacac ttaacatttt    1380

atattcaaat atactttaat ttagtcatga taatacaact cacctactcc attatagccg    1440

ataatacaac tcacctagct actccattat agtccaacaa tatcaaatga ataaaatagt    1500

aatggtgact taaagggctg aatccaacat atattcgac atttaaaaat gctaacgtac    1560

ggttagatta gtataatgaa ataaagttaa tcattctcta tatttgatga tggtaattag    1620

tatcatggta aggtgtttta tcgtggcagc atgagtgcat gacaaacgca tatattatta    1680
```

```
ttaaaacaaa atagtactcc aatcataata aattatctta tattatattg ccaacaatta   1740

aaaattcaaa ttagaacaaa ttaaatctca gtttgcttta ttatattatt atcaacaata   1800

ataatttaat actgatcgaa gaactttccc tttcaagttc tctatttaag gaagcctgag   1860

aagccattaa tcctcatcat cagctcgacc actcatttct tcttcatact tcctttgctg   1920

tgataatcat catc                                                     1934


<210>  11
<211>  2433
<212>  DNA
<213>  Ipomoea batatas

<400>  11
cctcatggag tattctcata actctcttca gtatgaatga atcatacaat acaacgcagc     60

gacgaataga cttcgccctg aactagacat acgacaacat agccaccata cgggaaaggc    120

acttcaagct ctttatcccg taggctgcaa caacataacg acataacgac cactgggcaa    180

gggcatttac agccacccgt gggtcaatca aggtcctcct cactcacttt agaaactaag    240

ggtttgaaaa catgatcttt ccttcagttt ttcttacaac aaatcattca ctttggacac    300

atttcacaat tgagtccaat acttaaaccg gctacttcat tagccccctga aggattttaa    360

aaaaaacttt cactgcccgc aggctcttca aacatctttt cctcattatc aagtgaggca    420

ttttcctcaa aagtaaggtt ttgacaacct ttatatcaaa atagcatacg tttttcaacg    480

taagtttcat aacatttact tgccatctca ccacttcgtc ttaaacaatc taggatattc    540

ttagatattc ttcatactca agtctcacac ttgaaatcaa tcaagatct ttacactaaca    600

attcctcaat ataccctcata atatcatctc tacttaaact agagagattt ccaactctca    660

attaatcacc aaaggtaact ctccaaatat ccaaatggaa ggtttcaact tccaaactaa    720

taccaaacca accggactaa tcataatcat attcataatc ataaattgtt tctaactgcc    780

cctgtccaga aattacagtt ttgcgcagtc cgaaagattg agccggtaac aatagttccc    840

gaactctttt tcacttgaaa tttttatggt agaaccctaa cttatagtac ttgatatcca    900

taaaaagttt tggtcaccta ggttcacgaa ttaacacaga aaattacatc tttgcccttg    960

gcagtgggct gtccggaatt ctgtctctct ggaccagttt tggcaaacaa ttttgaaacc   1020

acacttatac tactccaaaa attatgaaat ttttatggta gcttctacac ttatagaact   1080

acatgtataa aaaatattgg gtcaaaatac cttaccgatt tttcccaaat attcacggaa   1140

cttactgcca gaatctaccc tgcttttttcc tttcactatt ttcacaacta taagcatata   1200

tgggcataaa tatgacatga acatgcatga accaatgcag ggtgaaagta agattgaata   1260

tactgatact acaattaact aatgataaag tataacttttt gtaaaaaatt tgatttttt    1320

ttttgatgaa ttcatatact ccaaagattt tcctcattta attaaatttc tatcctcatg   1380
```

```
ttgaacccat taatcgaata attgacatat tagataaact tagccatcat atgacatttg    1440

atcatgattg atgattttta aaaaataaaa acaaaattat gaaagggtaa tgaaatattt    1500

taaaaaaatt atgtaaaccc tgtaatctag taatctgtac aataataatt ttgtttcaac    1560

taagaggatg ttggcaaaag tataattaaa cttgtgatct tcgtacaata attatgcttc    1620

acgcactcaa ctagtcacat ctttccaggc aaaatttact tttctatgaa tatgagaagt    1680

tccatctatg gaaataacgg attatttatc taattttcaa attctatata tatagtctcg    1740

agtggaacaa aaatagaact aatttgaaca aatcaaagtc taagaaaata atacatgctt    1800

tagcagcaaa aataagaatg gtactatact taatcctcat catagtcttc aaccctgcat    1860

atagcacact taacatttta tattcaaata tactttaatt tagtcatgat aatacaactc    1920

acctactcca ttatagccga taatacaact cacctagcta ctccattata gtccaacaat    1980

atcaaatgaa taaaatagta atggtgactt aaagggctga atccaacata tattctgaca    2040

tttaaaaatg ctaacgtacg gttagattag tataatgaaa taaagttaat cattctctat    2100

atttgatgat ggtaattagt atcatggtaa ggtgtttttat cgtggcagca tgagtgcatg    2160

acaaacgcat atattattat taaaacaaaa tagtactcca atcataataa attatcttat    2220

attatattgc caacaattaa aaattcaaat tagaacaaat taaatctcag tttgctttat    2280

tatattatta ctaacaataa taatttaata ctgatcgaag aactttccct ttcaagttct    2340

ctatttaagg aagcctgaga agccattaat cctcatcatc agctcgacca ctcatttctt    2400

cttcatactt cctttgctgt gataatcatc atc                                 2433
```

```
<210>  12
<211>  26
<212>  DNA
<213>  Artificial

<220>
<223>  GSP1 promoter

<400>  12
ctgagccgag tgacaaagga agccat                                           26


<210>  13
<211>  22
<212>  DNA
<213>  Artificial

<220>
<223>  AP1 promoter

<400>  13
gtaatacgac tcactatagg gc                                               22


<210>  14
<211>  25
```

```
<212>  DNA
<213>  Artificial

<220>
<223>  GSP2 promoter

<400>  14
cacagcaaag gaagtatgaa gaagc                                    25


<210>  15
<211>  19
<212>  DNA
<213>  Artificial

<220>
<223>  AP2 promoter

<400>  15
actatagggc acgcgtggt                                          19


<210>  16
<211>  26
<212>  DNA
<213>  Artificial

<220>
<223>  exon promoter

<400>  16
atggcttcct ttgtcactcg gctcag                                 26


<210>  17
<211>  30
<212>  DNA
<213>  Artificial

<220>
<223>  intron promoter

<400>  17
tcatcagctc gaccactcat ttcttcttca                             30


<210>  18
<211>  35
<212>  DNA
<213>  Artificial

<220>
<223>  forward promoter for -2433 deletion promoter

<400>  18
gccaagcttg gtcctcatgg agtattctca taact                       35


<210>  19
<211>  33
<212>  DNA
<213>  Artificial
```

<220>
<223> forward primer for -1934 deletion promoter

<400> 19
gccaagcttt tgccatctca ccacttcgtc tta   33

<210> 20
<211> 31
<212> DNA
<213> Artificial

<220>
<223> forward primer for -1467 deletion promoter

<400> 20
gccaagcttg gctgtccgga attctgtctc t   31

<210> 21
<211> 33
<212> DNA
<213> Artificial

<220>
<223> forward primer for -1199 deletion promoter

<400> 21
gccaagctta tgcagggtga aagtaagatt gaa   33

<210> 22
<211> 26
<212> DNA
<213> Artificial

<220>
<223> forward primer for -818 deletion promoter

<400> 22
gccaagcttg cttcacgcac tcaact   26

<210> 23
<211> 33
<212> DNA
<213> Artificial

<220>
<223> forward primer for -433 deletion promoter

<400> 23
gccaagctta tggtgactta aagggctgaa tcc   33

<210> 24
<211> 34
<212> DNA
<213> Artificial

<220>
<223> reverse primer for -2433, 1934, 1467, 1199, 818, 433, 366, 306,
     177 and 110 deletion promoter

```
<400>  24
tcctctagag atgatgatta tcacagcaaa ggaa                                    34


<210>  25
<211>  31
<212>  DNA
<213>  Artificial

<220>
<223>  forward primer for -366 deletion promoter

<400>  25
ttcctgcaga tagtataatg aaataaagtt a                                       31


<210>  26
<211>  26
<212>  DNA
<213>  Artificial

<220>
<223>  forward primer for -306 deletion promoter

<400>  26
tttctgcagt aaggtgtttt atcgtg                                             26


<210>  27
<211>  25
<212>  DNA
<213>  Artificial

<220>
<223>  forward primer for -177 deletion promoter

<400>  27
ttcctgcaga aattaaatct cagtt                                              25


<210>  28
<211>  24
<212>  DNA
<213>  Artificial

<220>
<223>  forward primer for -110 deletion promoter

<400>  28
ttcctgcagt ttccctttca agtt                                              24


<210>  29
<211>  19
<212>  DNA
<213>  Artificial

<220>
<223>  forward primer for NPTII

<400>  29
gaggctattc ggctagatg                                                     19
```

<210> 30
<211> 21
<212> DNA
<213> Artificial

<220>
<223> reverse primer for NPTII

<400> 30
atcgggagcg gcgataccgt a   21